

WILDLIFE HABITAT EVALUATION GUIDE
REPTILES AND AMPHIBIANS

Date of Survey _____	Time Start _____	Current land-use practice/irrigation method _____
Observer! Recorder _____		Project-related changes _____
Name of landowner _____		Time End _____ Weather _____
		Location _____

GROUP MODEL frog, Wandering garter snake.
Representative Species: tiger salamander, Boreal chorus frog, Northern leopard

Habitat: All occupy a variety of habitats –grassland, brushland, woodland, and forest. All require a slow moving water source –pond, stream, marsh, canal, reservoir.

Special Habitat Reciuirements: Water for feeding and breeding and dense herbaceous vegetation for cover. Tiger salamander adults require burrows of ground squirrels, gophers, or badgers for shelter during non-breeding season.

Food Habits: The tiger salamander and both frogs feed primarily on a variety of terrestrial and aquatic insects and other invertebrates. The garter snake feeds on tadpoles, frogs, slugs, leeches, earthworms, fish, salamanders, lizards, snakes, small mammals, and occasionally birds.

HABITAT INVENTORY

RATING

a. Cropland Quantity and Quality **a: _____**

Percent of area in cropland:

0-30%	=1.0
31-60%	=0.5
61-90%	=0.3
91-100%	=0.1

Deduct 0.3 points for any heavy (e.g., moldboard plow) tillage, burning, grazing, or other destruction of crop residue.

Deduct 0.3 points for heavy use of insecticides.

Add 0.3-0.5 if cropland has a substantial amount of uncultivated shrub/herbaceous habitat interspersed throughout the area, good availability of aquatic habitat with vegetative cover, and/or abundant prey.

Rationale: The representative species prefer open native habitats with adequate vegetative cover year round. Harvesting, plowing and tilling conducted on croplands are detrimental to these species. Insecticide applications reduce insect prey populations.

b. **Herbaceous Vegetation Quantity and Quality** b. __

Percent of area with uncultivated herbaceous vegetation:

41-60%	= 1.0
11-40% or 61- 90%	= 0.5
0-10% or 91- 100%	= 0.1

Deduct 0.3 points for moderate grazing or haying.

Deduct 0.5 points for heavy grazing, burning, herbicide/insecticide applications, etc.

Add 0.3 -0.5 points if suitable wetland habitat is available within home range of these species and/or abundant prey is available.

Rationale: The representative species prefer open habitats with a good mixture of herbaceous cover, nearby wetlands (amphibians and some snakes), and/or rock piles, logs, burrows etc. for escape cover (most lizards). However, as the herbaceous cover nears 100% these other important habitat elements are eliminated. Haying, burning, and heavy grazing are detrimental to these species. Insecticide applications reduce insect prey populations.

c. **Woody Vegetation Quantity and Quality** c. __

Percent of area with woody vegetation (shrubs and trees):

31- 60%	= 1.0
11-30% or 61- 80%	= 0.5
1-10% or 81- 100%	= 0.3

Deduct 0.3 points for moderate grazing.

Deduct 0.5 points for heavy grazing, burning, herbicide/insecticide applications, etc.

Higher rating should be given if vegetation is distributed evenly over study area.

Rationale: Moderate amounts of woody vegetation provide valuable structural diversity and increased cover within the habitat. Excessive woody cover diminishes the amount of open habitat favored by this group and provides perch sites for avian predators.

d. Interspersion of Vegetation Types

d. _____

Avg. distance between vegetation types < 100 feet	= 1.0
Avg. distance between vegetation types from 100-500 feet	= 0.5
Avg. distance between vegetation types > 500 feet	= 0.3

Rationale: Most reptiles and amphibians have limited home ranges (i.e., < 1 acre) and will not travel long distances between habitats.

e. Human Disturbance

e. _____

Infrequently used roads, no occupied dwellings in study area; urban development at least 1/2 mile away.	= 1.0
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Frequently used roads; 1 occupied dwelling per 40 acres; urban development within 1/4 to 1/2 mile.	= 0.5
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Study area <40 acres; contains 2 or more occupied dwellings or frequently used roads; less than 1/4 mile from urban development.	= 0.3
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Rationale: Road-kills are a substantial source of mortality for reptile and amphibian populations. Human activity can be disturbing to some populations.

f. Lakes, Ponds, Wetlands, Streams

If lake, pond, wetland, or stream is present, rate as follows:

Avg. distance from any point in study area to perennial stream or wetland is < 200 feet	= 1.0
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Avg. distance from any point in study area to perennial stream or wetland is 200-500 feet or average distance from any point in study area to intermittent stream or wetland is < 200 feet	= 0.5
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Avg. distance from any point in study area to perennial wetland is 500-1000 feet or average distance from any point in study area to intermittent lake, pond, stream, or wetland is 200-500 feet =0.3

Deduct 0.2-0.5 points for any grazing, cultivation, burning, vegetation removal or pesticide use within 75 feet of lake, pond, wetland or stream

Rationale: All amphibians and many reptiles are closely associated with aquatic habitats; the limited home range of these animals mandates that the wetland must be near their primary habitat.

HABITAT VALUE

Habitat value = $\frac{\text{Total Rating}}{\text{No. of inventory factors rated}}$ = _____

LIMITING FACTORS

ENHANCEMENT OPPORTUNITES